



**APPENDIX A**  
**Serial No. 09/456,151**  
**Substrate Having Magnetoresistive Element**  
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**In the Claims**

Please amend Claims 1, 7, 9, and 13 as follows:

1. (Amended) A substrate having magnetoresistive elements, comprising:  
a lower shielding ~~later~~layer formed on a substrate,  
a lower gap layer formed on the lower shielding layer,  
a plurality of magnetoresistive elements each having a multilayer film exhibiting a magnetoresistive effect,  
electrode layers conducting to the multilayer film, and  
a processing monitor element having the same structure as the magnetoresistive elements, the magnetoresistive and processing monitor elements being arranged on the lower gap layer,  
wherein in addition to the lower gap layer, an insulating layer is formed between the monitor element and the lower shielding layer to be exposed from an air-bearing-surface (ABS) side, and the distance between the monitor element and the lower shielding layer on the ABS side is larger than that between the magnetoresistive elements and the lower shielding layer on the ABS side.
7. (Amended) A substrate having magnetoresistive elements according to Claim 1, wherein the insulating layer ~~is made of any~~comprises at least one of: insulating materials ~~such as~~  $\text{SiO}_2$ ,  $\text{Ta}_2\text{O}_5$ ,  $\text{TiO}$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{Si}_3\text{N}_4$ ,  $\text{AlN}$ , and  $\text{WO}_3$ .
9. (Amended) A substrate having magnetoresistive elements, comprising:  
a lower shielding ~~later~~layer formed on a substrate,  
a lower gap layer formed on the lower shielding layer,  
a plurality of magnetoresistive elements each having a multilayer film exhibiting a magnetoresistive effect,  
electrode layers conducting to the multilayer film,

a processing monitor element having the same structure as the magnetoresistive elements, the magnetoresistive and processing monitor elements being arranged on the lower gap layer,

wherein in addition to an upper gap layer, an insulating layer is formed on the magnetoresistive elements and the monitor element to be exposed from an air-bearing-surface (ABS) side, and the distance between the monitor element and an upper shielding layer formed on the upper gap layer on the ABS side is larger than that between the magnetoresistive elements and the upper shielding layer on the ABS side.

13. (Amended) A substrate having magnetoresistive elements, comprising a lower shielding layer formed on a substrate, a lower gap layer formed on the lower shielding layer, a plurality of magnetoresistive elements formed on the lower gap layer and each having a multilayer film exhibiting a magnetoresistive effect, and electrode layers conducting to the multilayer film, and a processing monitor element formed adjacent to the plurality of magnetoresistive elements and having the same structure as the magnetoresistive elements so that on an air-bearing-surface (ABS) ~~the ABS side,~~ the monitor element is formed on the substrate with the lower gap layer held therebetween, without the lower shielding layer.